

Figure A shows the element that helps the other element

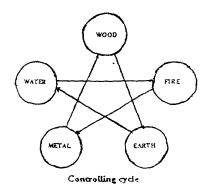


Figure B shows the element that controls the other element

Any imbalance (excess or deficiency) of one element leads to disturbance in other elements and becomes the root cause of a disease. The health of human body is achieved by managing and controlling the above elements in Chinese medicine.

Most of the world traditional philosophies follow the same concept.

Figure 2

Relation of colors with humors

VATA	КАРНА	PITTA

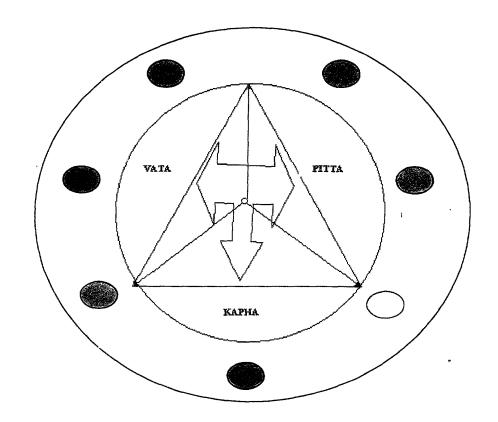
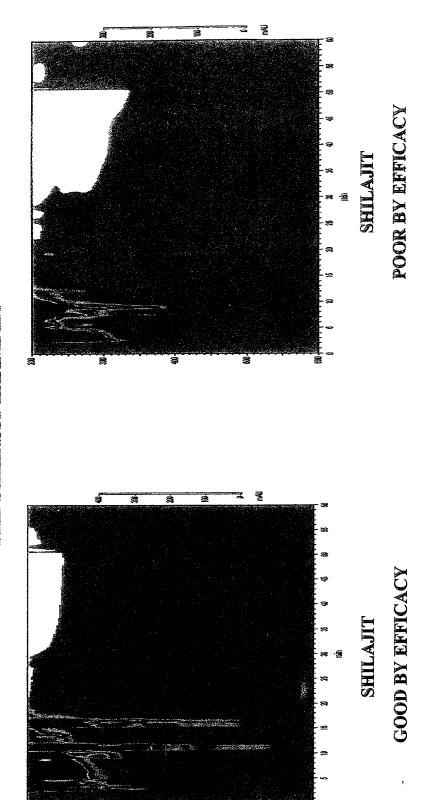


Figure 3

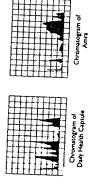
THE SHILAJIT EXAMPLE



Figure

Herbal formulations with the same ingredients depending on the quality and processing of the herbs. Careful selection of herbs, stringent quality control and Chromatographic fingerprinting ensure that the final product delivers the same benefits that have been proven in clinical studies. may differ substantially in safety and efficacy

are manufactured according to the rigid standards research and scientific analysis. These products represents the results of subjecting ancient Ayurvedic knowledge to rigorous modern Each Ayurvedic CONCEPTS formula of modern pharmaceutical technology.



Keep out of the reach of children. Store in a cool, dry place.

THE HIMALAYA DRUG CO.

MAKALI BANGALORE \$12 123 (INFIN) Enriching Ayurveda Throug! Research Since 1530 Research expertise by: €0

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paainh

Daily Health Capsules

Antistressor * Rejuvenator Amla · Licorice · Natural Zinc

Each capsule contains:

Garijara Yashad bhasma **Amolak**i

. gm 06 **%** .94 mg

}

Exts. Amra

120 mg 25 mg 25 mg

íashti-madhu

Lavanga

Draksha

ē

damage to the body by the release of he

Pollution and chemicals cause oxidating

radicals, thereby disturbing normal body

Continued stress disrupts the immunesse

Stress has become part of life today.

a healthy equilibrium,

Relieves stress, mental fatigue. Res

the state of the sangers of the sangers

leading to chronic faugue, hypertension

17.56 mg

Daily Health capsules are non-sedating

10.50 mg

functions.

Godhuma

Dosage: 2 capsules twice a day,

Natural products provide gradual but long-lasting results. Allow several weeks for full benefits.

Mfg.Lic. Na.:Al 15-83 (Incl. of all taxes) M.R.P.: Rs.60.00

Exp.: 3 yrs. from date of Mfg

B.Na.: 90702

July 99 Mfd.:

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THE HIMALAYA DRUG CO Made in India by:

Completely safe. Non-toxic,

NON-SEDATING.

rich in anti-oxidant vitamins in the fe (Wheatgerm) oil (vit.E). Yashti-madh (Licorice) and Yashad bhasma (Nator Zinc) are excellent immune-stimula that bolster the body's defence mechans of Amra and Garijora (vit.A), Amalaki (Amla) (vit.C), and Lavanga (Clove), Draksha (Grapes) and Godhuma keeping you fit and healthy.

reatment of stress of various origit Clinical trials on the product have Ayurvedic Proprietary Medicine, proved it to be beneficial in the

> The chromatographic fingerprint does not give any clear information about the polarity and conjugative properties of the constituents.

CHROMATOGRAMS OF A COMMERCIAL TURIMERIC POWDER AT

AT DIFFERENT WAVELENGTHS

(The existing method)

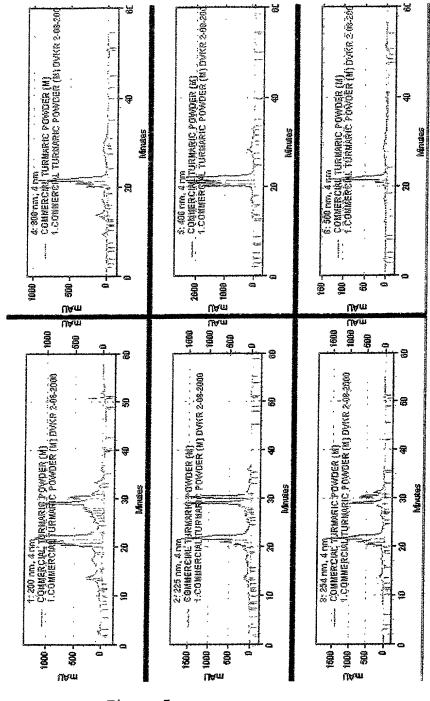


Figure 5

CHROMATOGRAMS OF A FURAZOLIDINE MEDICINE AT DIFFERENT WAVELENGTHS

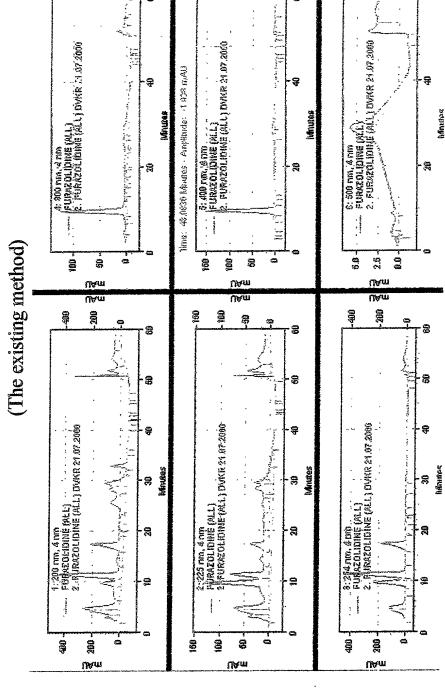


Figure 6

CHROMATOGRAMS OF A HERBAL FORMULATION KRIMIKUTARA RAS

AT DIFFERENT WAVELENGTHS

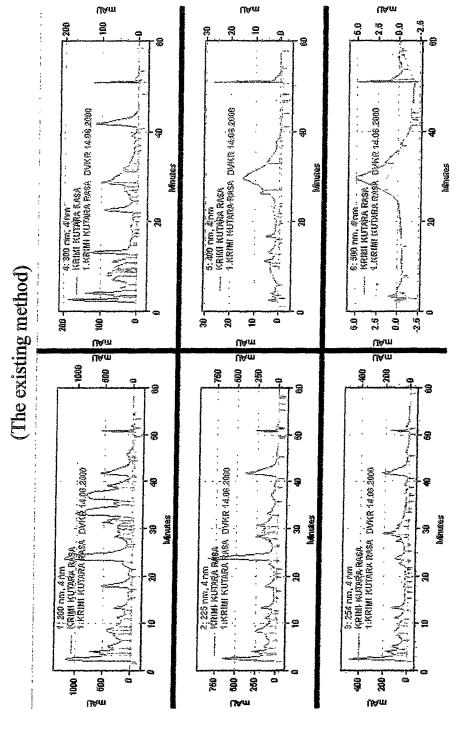


Figure 7

CHROMATOGRAMS OF A HERBOMINERAL MEDICINE SHILAJIT (GOOD BY EFFICACY) AT DIFFERENT WAVELENGTHS

(The existing method)

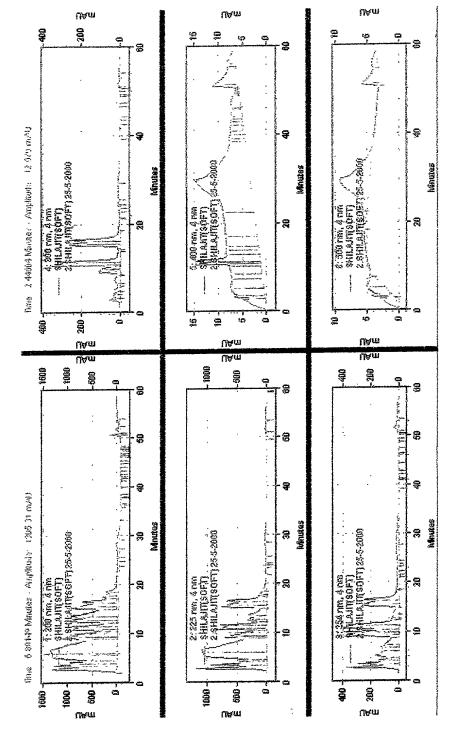


Figure 8

CHROMATOGRAMS OF A HERBOMINERAL MEDICINE SHILAJIT (POOR BY EFFICACY)



AT DIFFERENT WAVELENGTHS

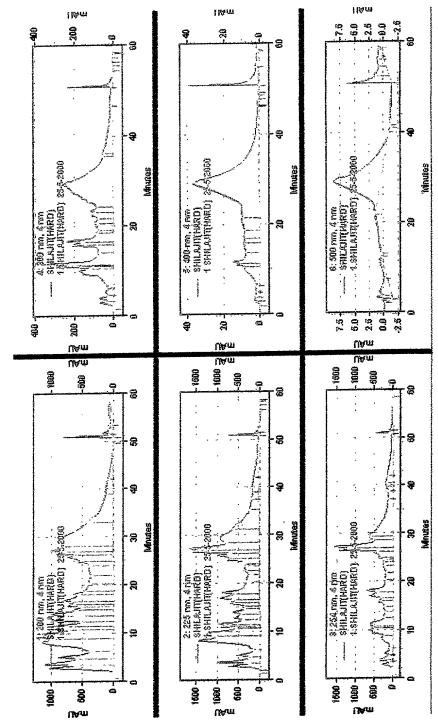
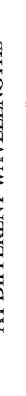


Figure 9

16 4 Å

CHROMATOGRAMS OF A HERBAL FORMULATION

SURYAVARTI AT DIFFERENT WAVELENGTHS



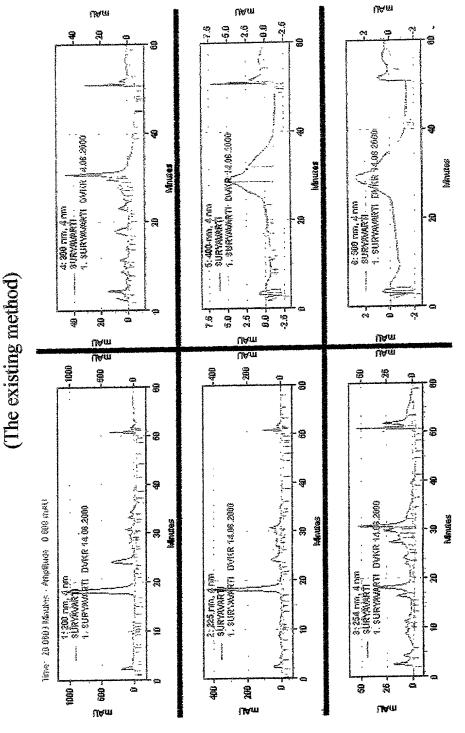


Figure 10

CHROMATOGRAMS OF A HERBAL FOOD PRODUCT

IEA

AT DIFFERENT WAVELENGTHS

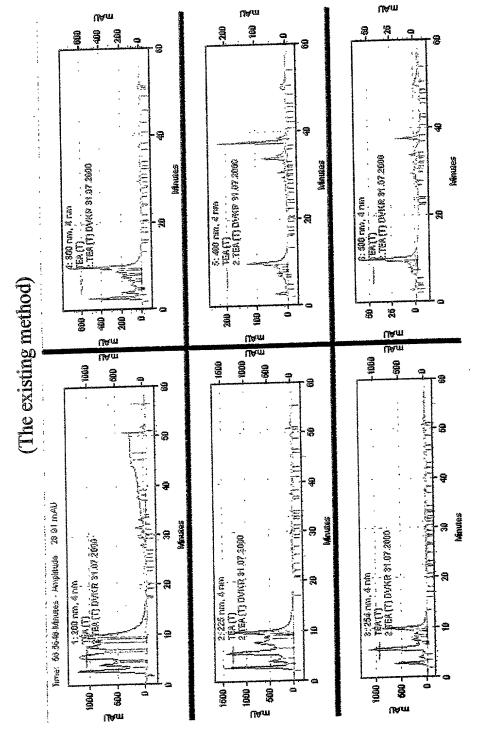
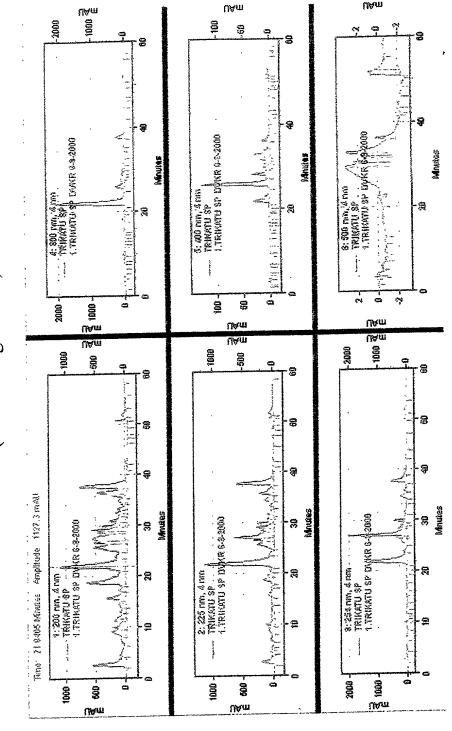


Figure 11

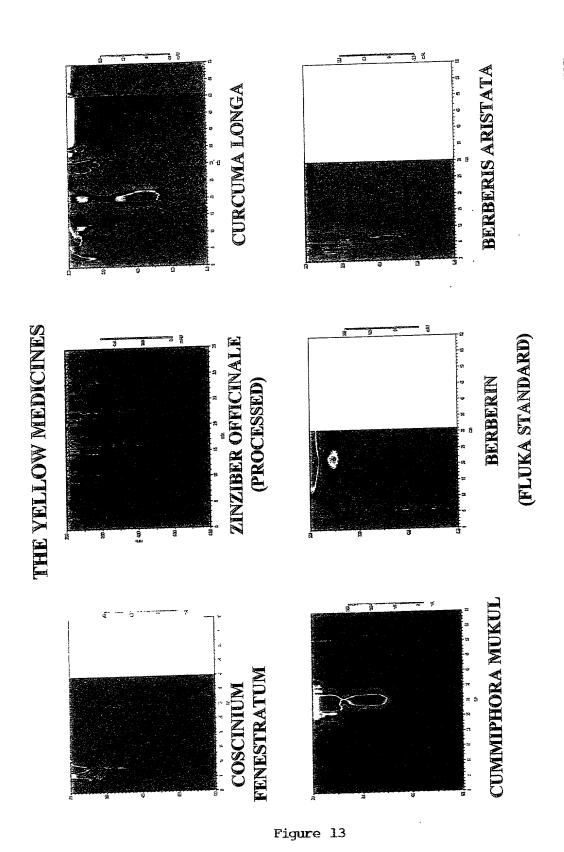
TRIKTU (A FORMULATION OF PIPPALI, MARICHA AND SHUNTI) CHROMATOGRAMS OF A HERBAL FORMULATION AT DIFFERENT WAVELENGTHS

(The existing method)

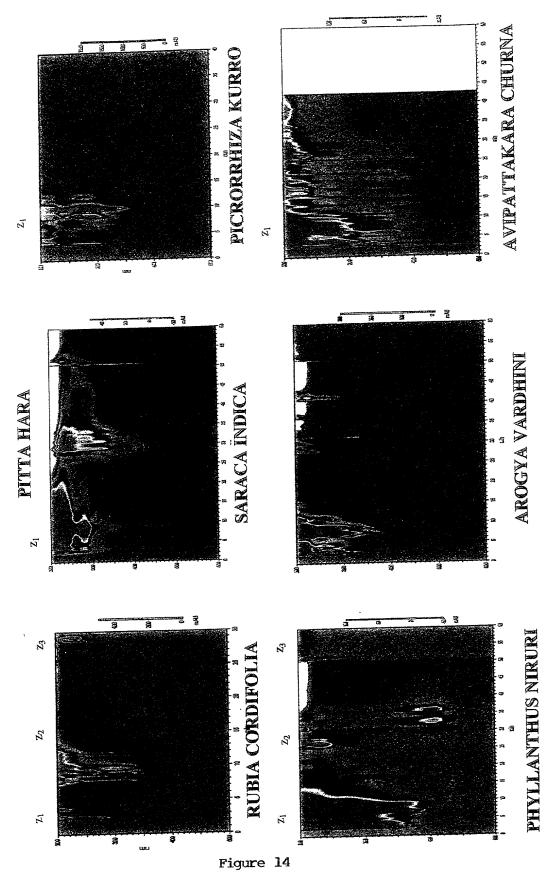


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Figure 12



A CLEAR DIFFERENCE IN APPEARANCE MAKING THE IDENTIFICATION MORE EASY. THE FINGERPRINTS OF CONTRAVERSIAL DRUGS (SANDIGDHA DRAVYAS) SHOWS



THE PRESENCE OF CONSTITUENTS IN ZONE-I INDICATES THE SAID EFFICACY OF THE MEDICINES

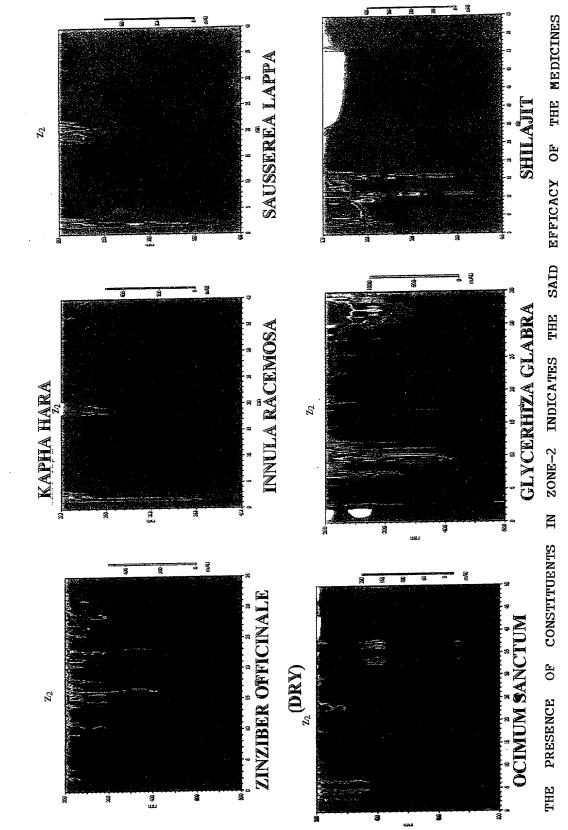
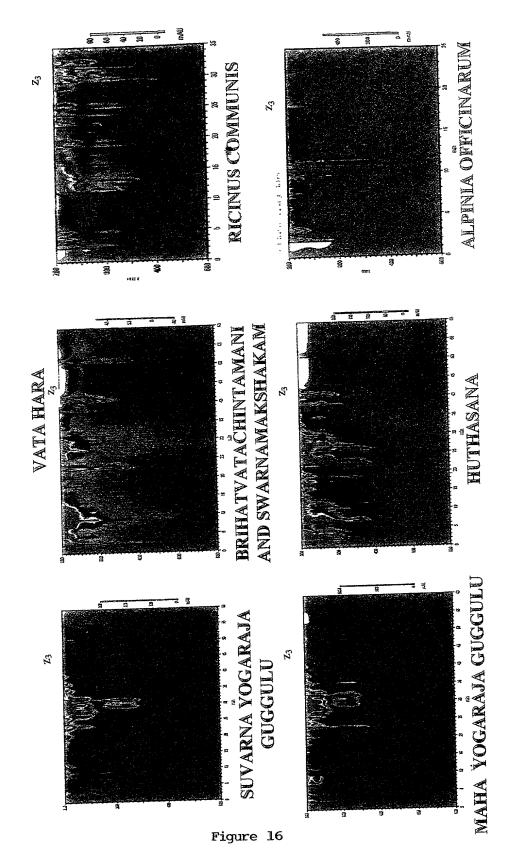
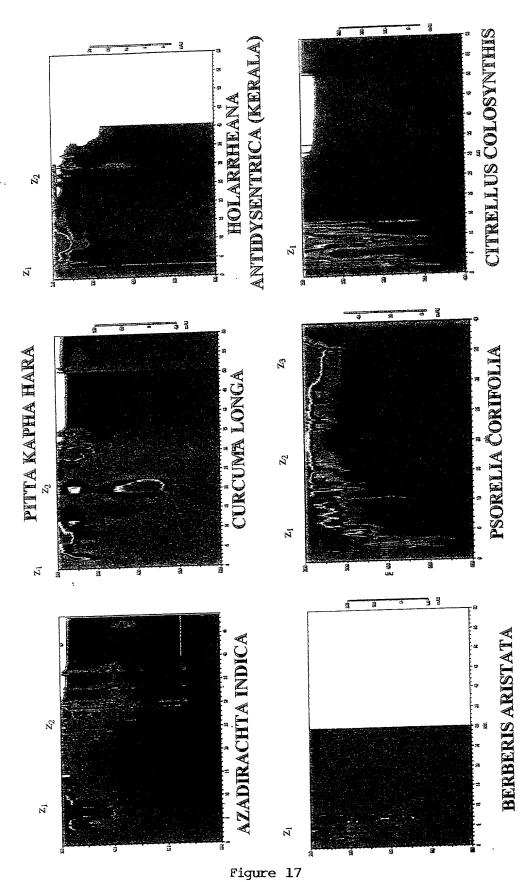


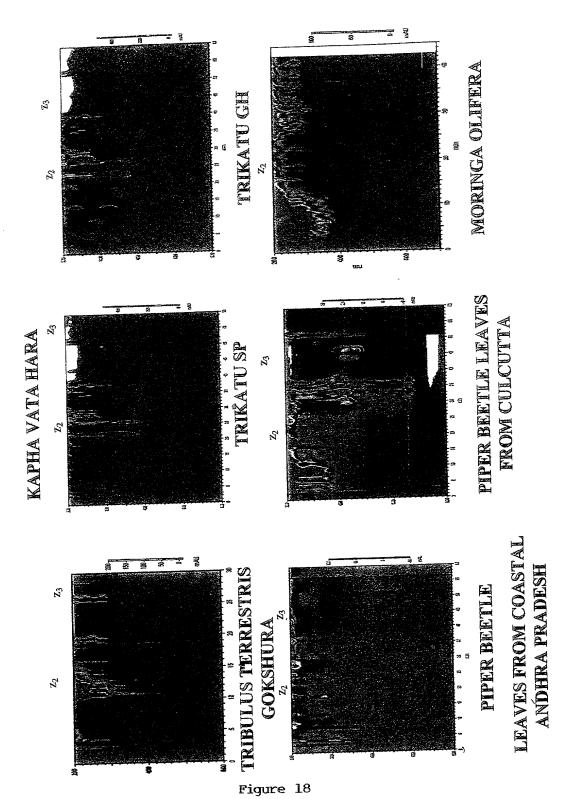
Figure 15



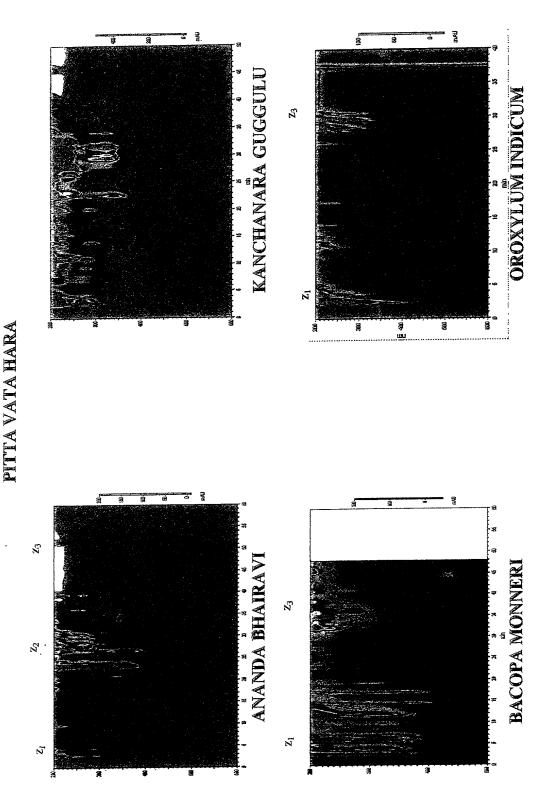
THE PRESENCE OF CONSTITUENTS ZONE-3 INDICATES THE SAID EFFICACY OF THE MEDICINES



THE PRESENCE OF CONSTITUENTS IN ZONE-1 AND ZONE-2 INDICATES THE SAID EFFICACY OF THE MEDICINES



THE PRESENCE OF CONSTITUENTS IN ZONE-2 AND ZONE-3 INDICATES THE SAID EFFICACY OF THE MEDICINES



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SAID EFFICACY

ZONE-1 AND ZONE-3 INDICATES THE

CONSTITUENTS IN

OF

THE PRESENCE
THE MEDICINES

Figure 19

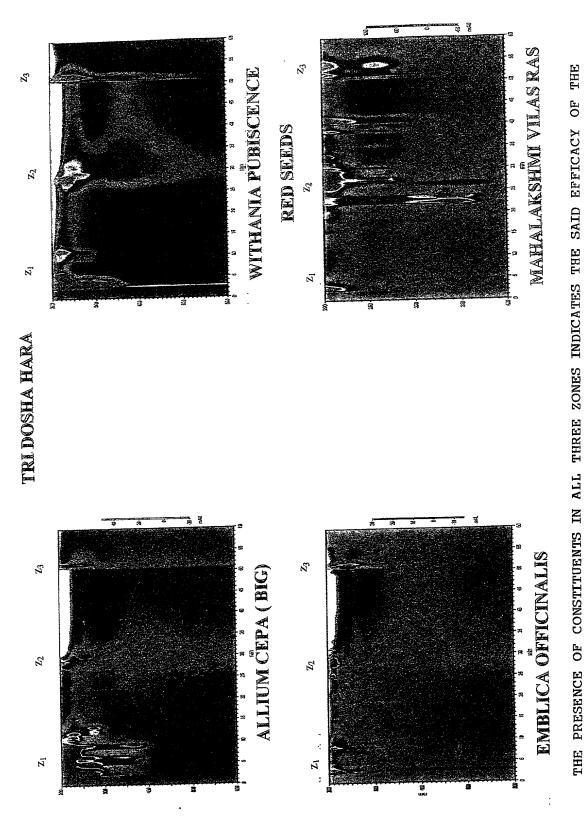
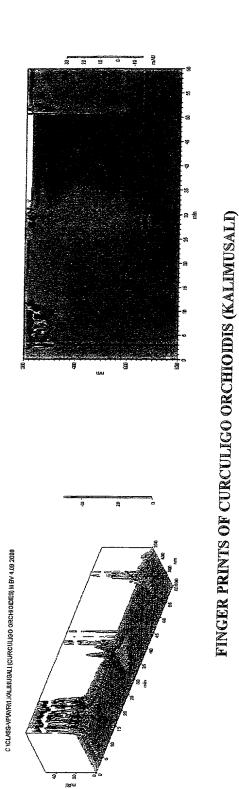
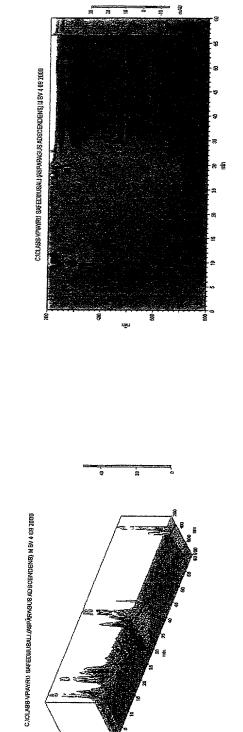


Figure 20

MEDICINES

Figure: MUSALI - A TRIDOSHA HARA MEDICINE





FINGER PRINT OF ASPARAGUS ADESCENDENS (SAFED MUSALI)

Figure 21

CITRULLUS COLOSYNTHIS



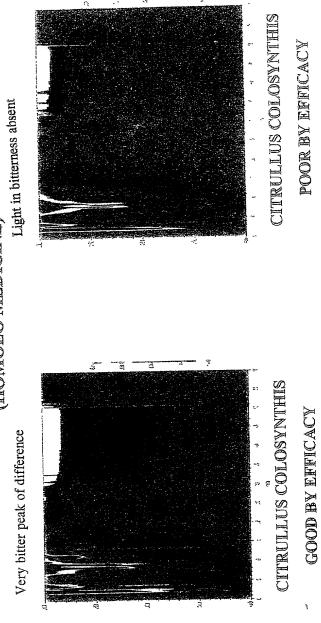
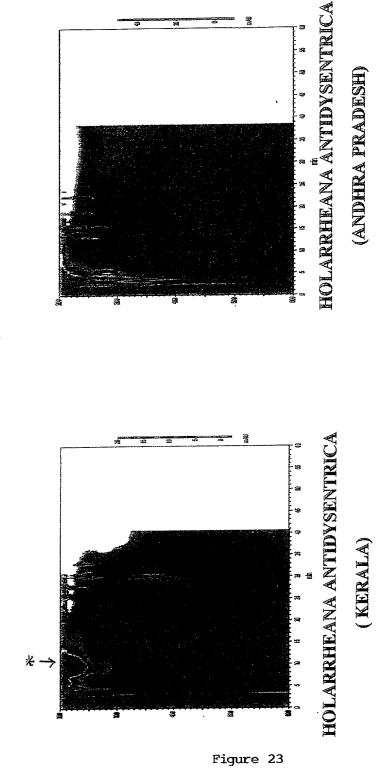


Figure 22



This supports the claim of taste identification used for therapeutic standardization.

INFLUENCE OF ECOLOGICAL FACTORS



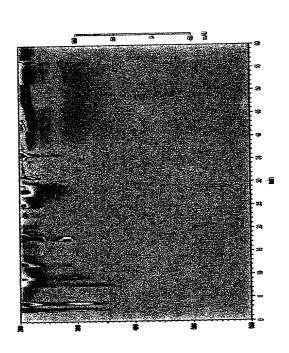
THE FINGER PRINTS SHOWS THE INFLUENCE OF ECOLOGICAL FACTORS ON THE CHEMICAL CONSTITUENTS OF THE PLANT MATERIAL OF

DIFFERENT TROPICAL ZONES OF THE COUNTRY.

This constituent is basic in nature because the basic or alkaline amines elutes stretched or elongated. Acid compounds elute fast like a sharp peak.

Figure 24

PIPER BEETLE EXAMPLE



BEETLE LEAVES FROM COASTAL

BEETLE LEAVES FROM CALCUTTA

ANDHRA PRADESH

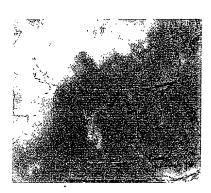
Aurones and Chareones (flavonoids) are antioxidants. A combinatorial library of can be seen. THE FLAVONOIDS PRESENT IN THE TIME RANGE OF 30 - 40 MIN SHOWS THE INFLUENCE OF GENOTYPIC, PHENOTYPIC VARIATIONS AND ECOLOGICAL FACTORS ON THE CHEMICAL CONSTITUENTS OF THE PLANT MATERIAL OF DIFFERENT

TROPICAL ZONES OF THE COUNTRY

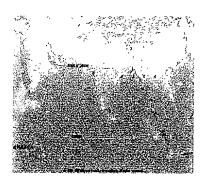
Figure 25
Figure : Indian Eco-regions



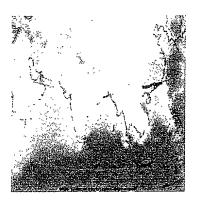
India-Eco-regions



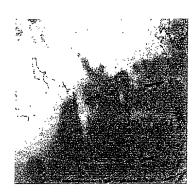
India-Precipitation-July



India-Temparature-January



India-Precipitations-January



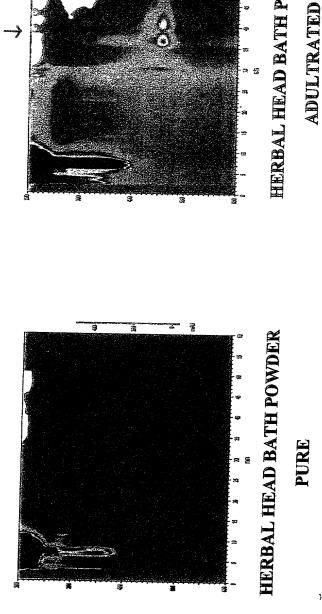
India-India precipitation -Annual

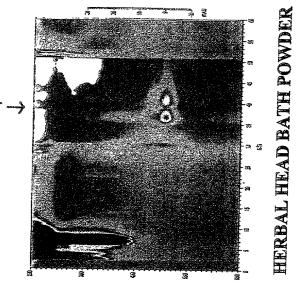


India-Climate map

Figure 26

HERBAL HEAD BATH POWDERS



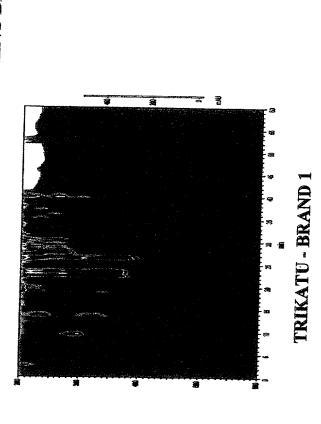


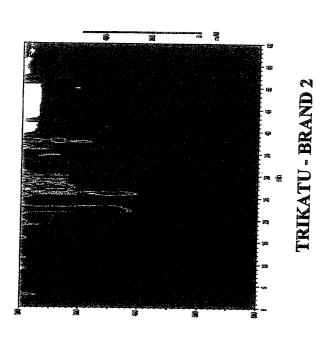
THE ABOVE FINGER PRINTS SHOW. THE ADULTERATION OF DETERGENTS IN THE SAID HERBAL COSMETIC PRODUCT. THUS FINGER PRINTING HELPS TO MONITOR THE ADULTERATIONS IN VARIOUS COMMERCIAL HERBAL PRODUCTS

Constituents at 35-40 minutes are highly basic and soapy in nature. The pure detergent sample are eluting at the same time. <u>ተ</u>

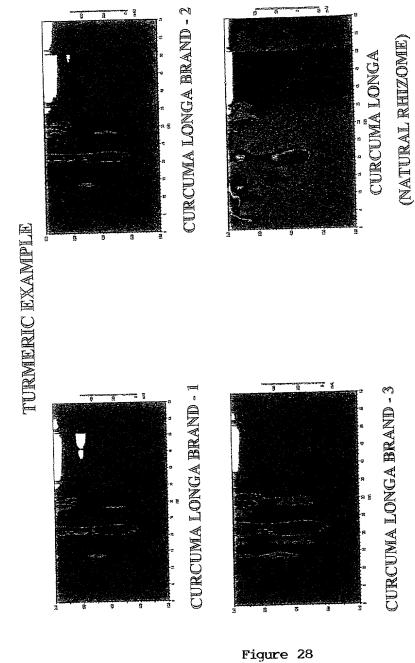
Figure 27

HERBAL FORMULATIONS OF DIFFERENT BRANDS



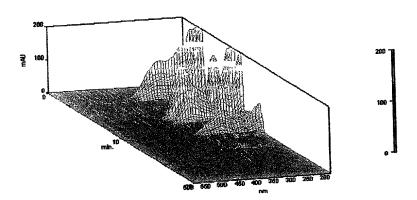


THE ABOVE EXAMPLE OF TRIKATU SHOWS DIFFERENCE IN THE ASSAY AND VARIATIONS IN THE CHEMICAL CONSTITUENTS. THE REASON MAY BE DUE TO THE VARIATIONS IN THE SINGLE MEDICINES USED TO PREPARE THE FORMULATIONS.



THE COMMON PEAKS AT 20 MIN IN NATURAL AND COMMERCIAL PRODUCTS INDICATES THE PRESENCE OF THE YELLOW COLORED MOLECULES IN ALL. FORMS HELPS IN THE QUALITY CONTROL OF THE NATURAL SUBSTANCES. THE FINGER PRINTS OF THE SAME HERBAL PRODUCT IN DIFFERENT

Figure 29



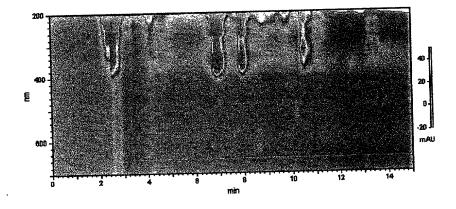
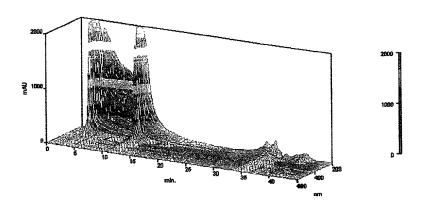


Figure 30



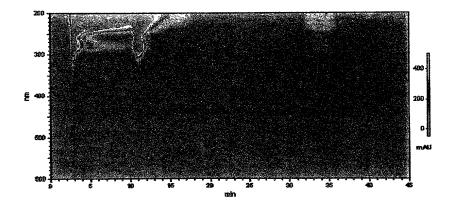
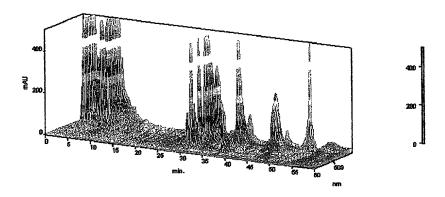


Figure 31



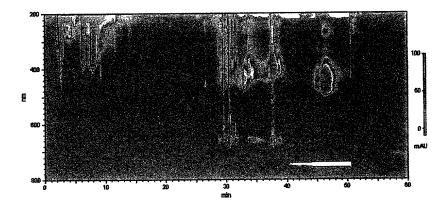
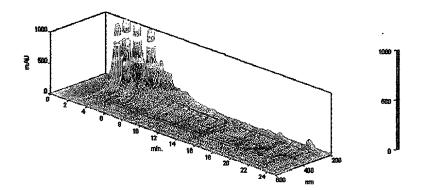


Figure 32



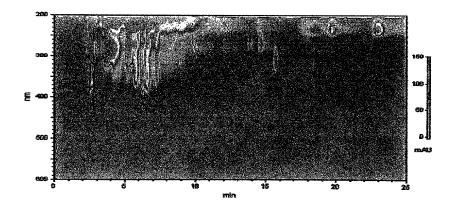
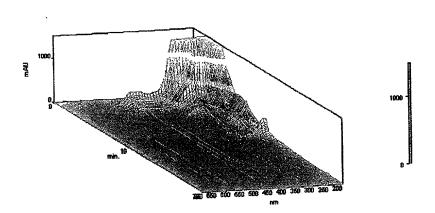


Figure 33



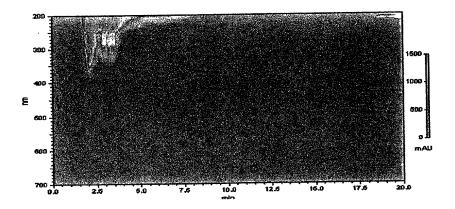
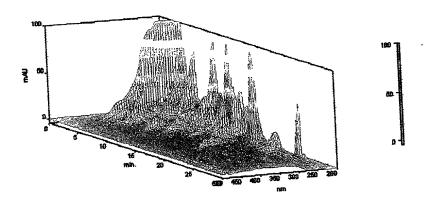


Figure 34



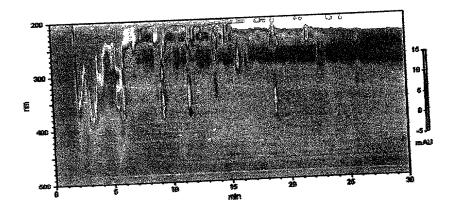
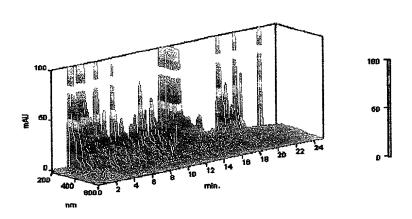


Figure 35



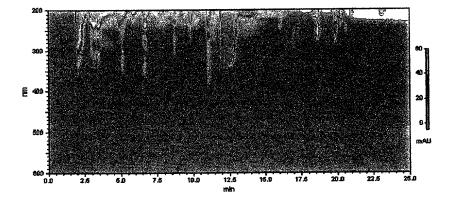
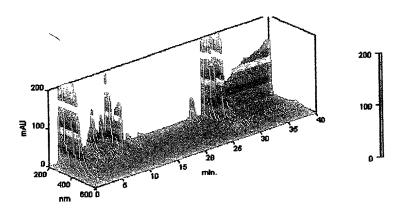


Figure 36



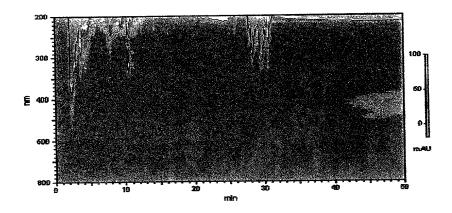
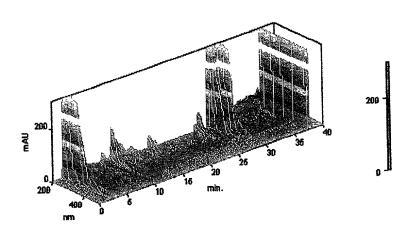


Figure 37



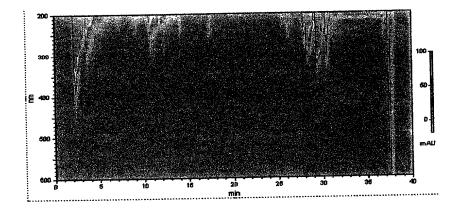
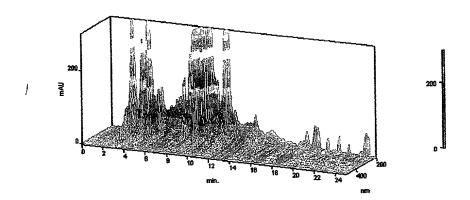


Figure 38



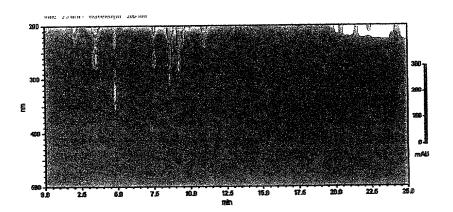
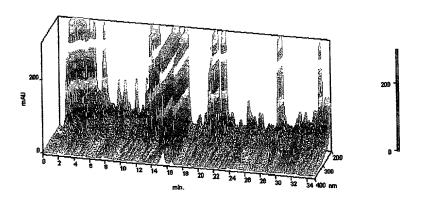


Figure 39



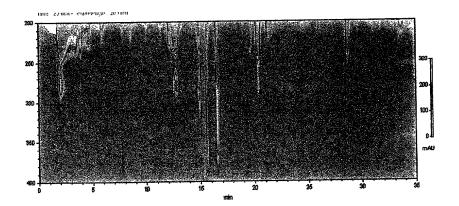
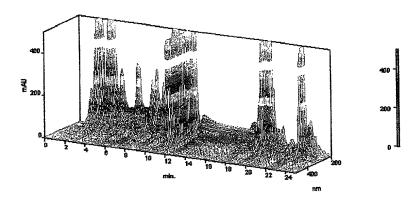


Figure 40



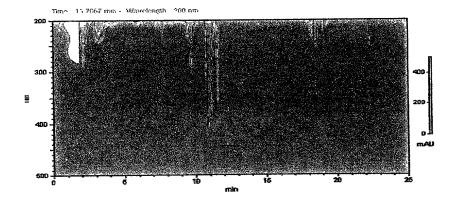
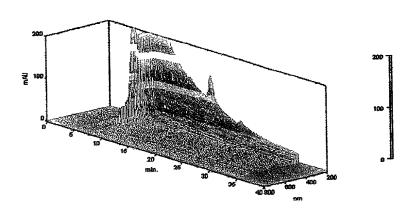


Figure 41



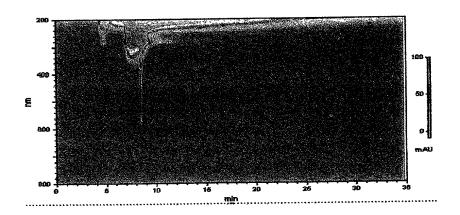
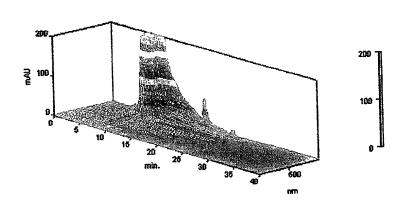


Figure 42



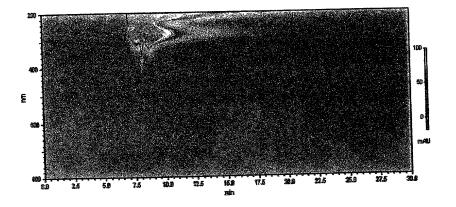
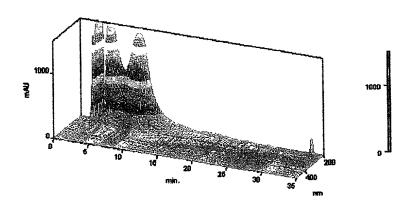


Figure 43



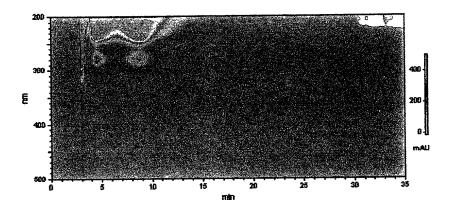
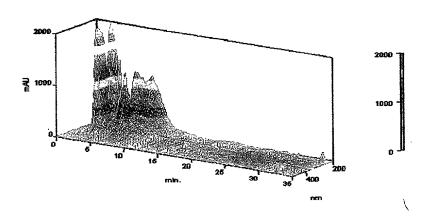


Figure 44



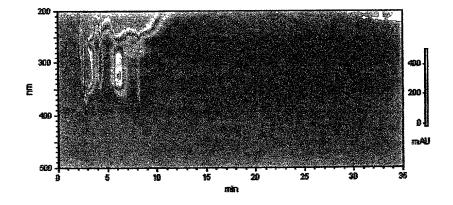
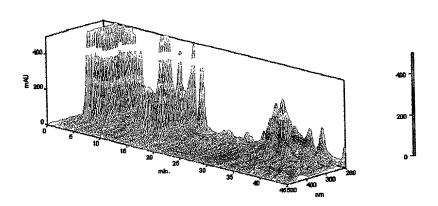


Figure 45



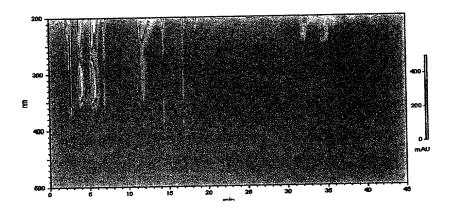
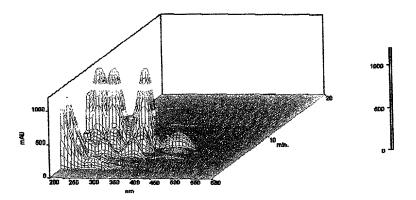


Figure 46



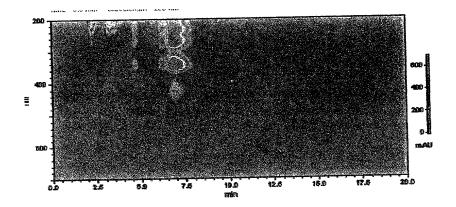
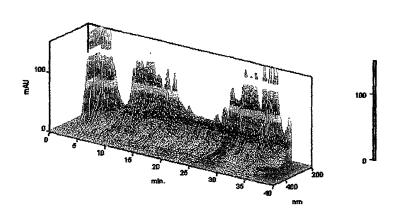


Figure 47



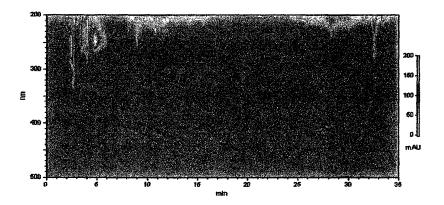
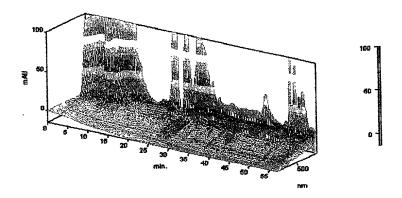


Figure 48



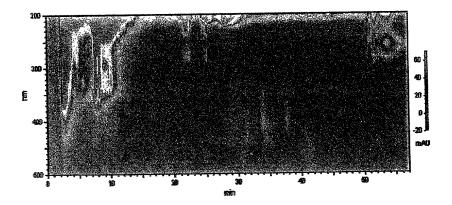
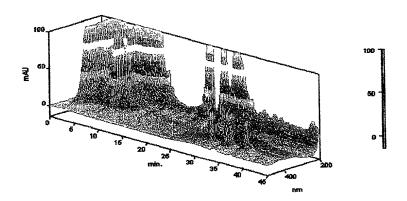


Figure 49



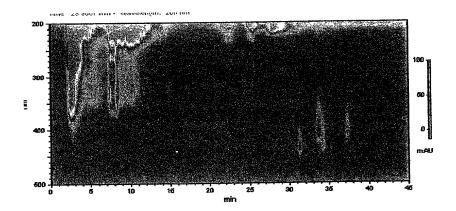
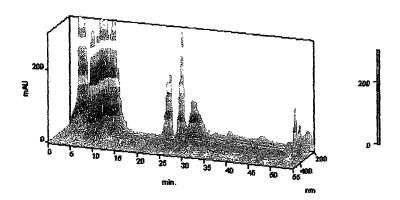


Figure 50



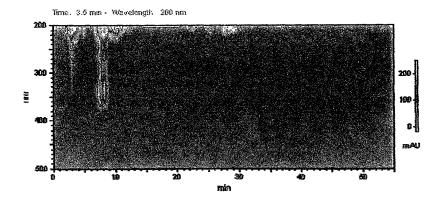
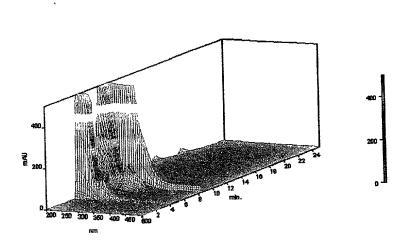


Figure 51



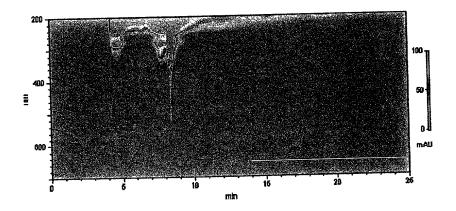
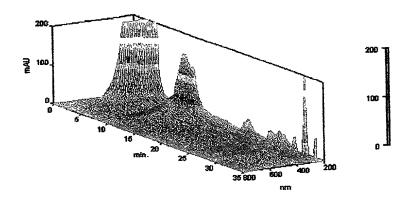


Figure 52



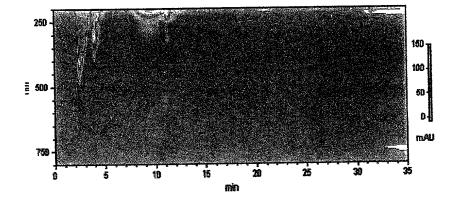
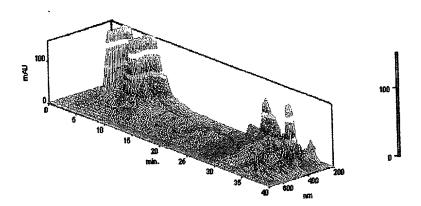


Figure 53



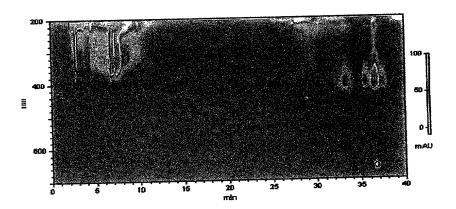
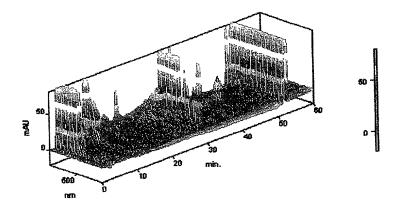


Figure 54



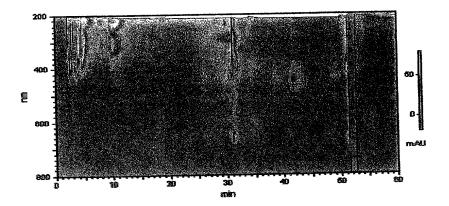
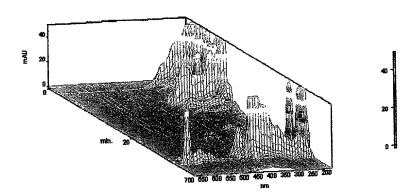


Figure 55



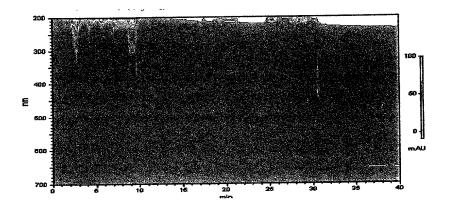
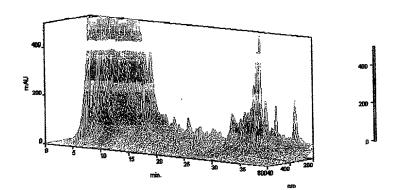


Figure 56



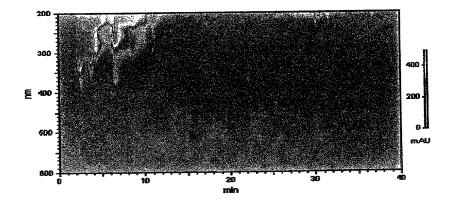
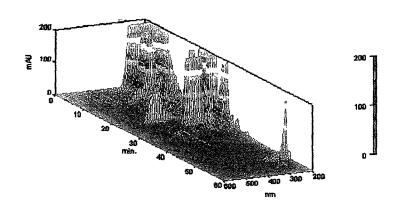


Figure 57



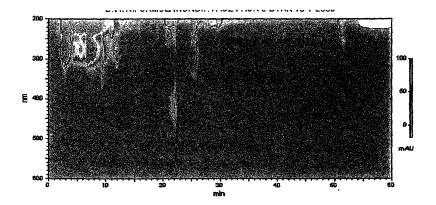
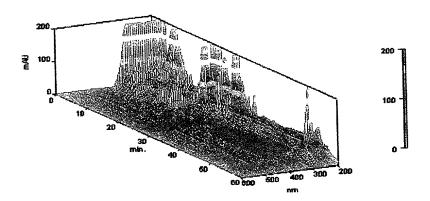


Figure 58



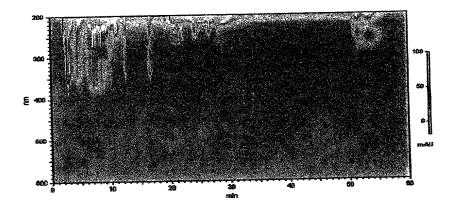
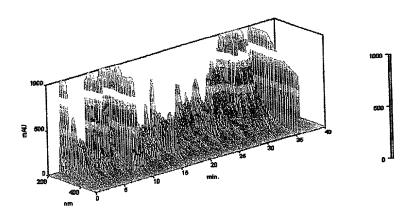
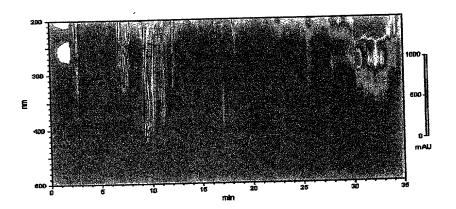
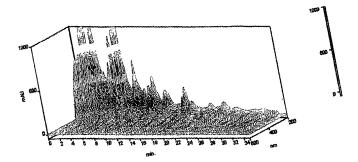


Figure 59







Harry Committee or the second of the second

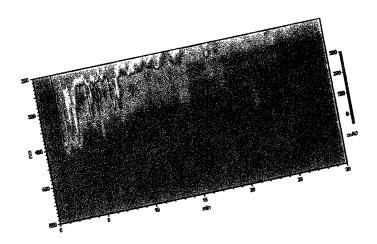
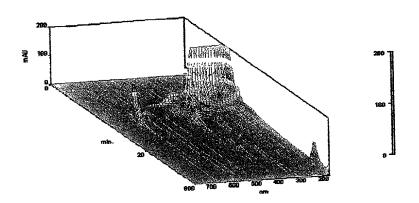


Figure 61



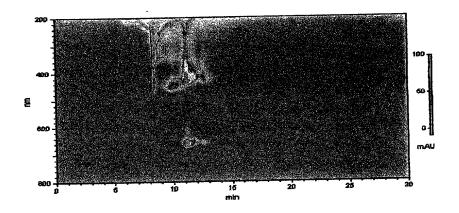
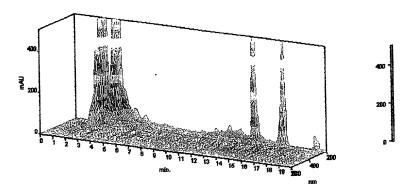


Figure 62



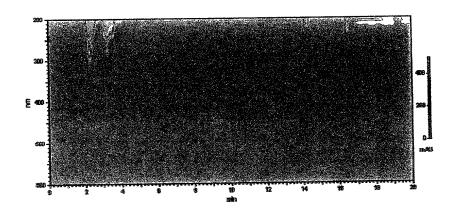
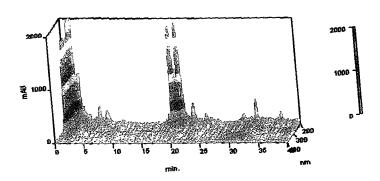


FIGURE 63



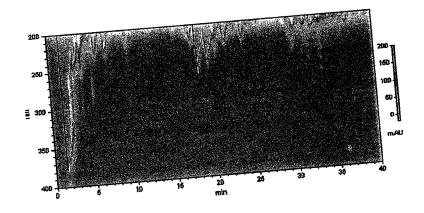
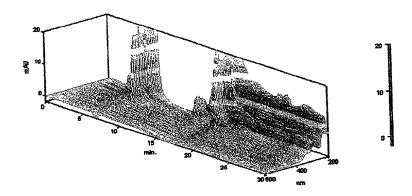


Figure 64



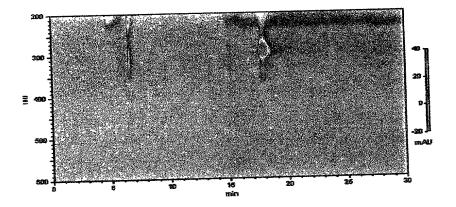
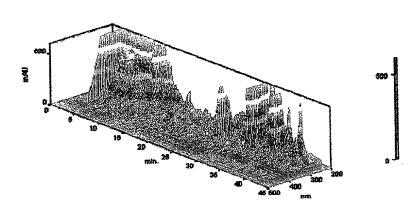


Figure 65



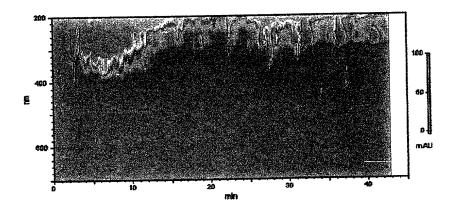
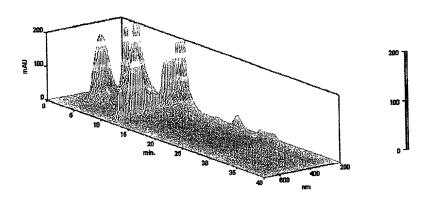


Figure 66



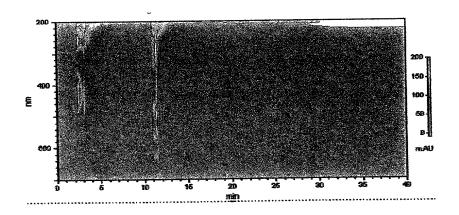
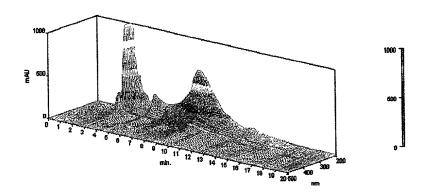


Figure 67



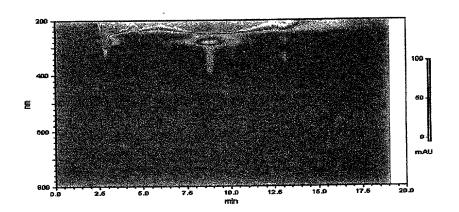
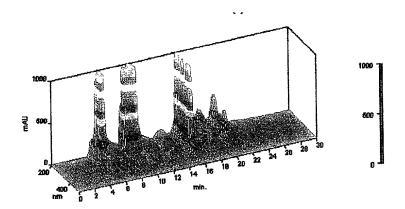


Figure 68



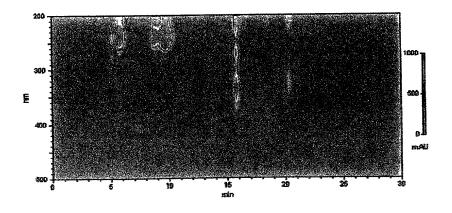
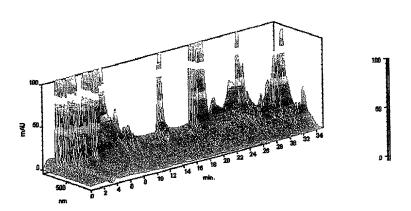


Figure 69



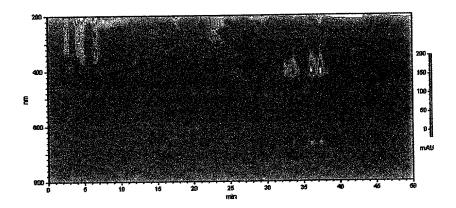
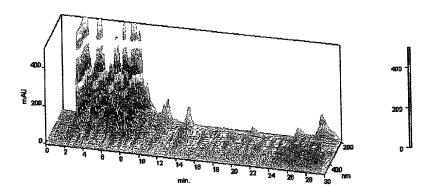


Figure 70



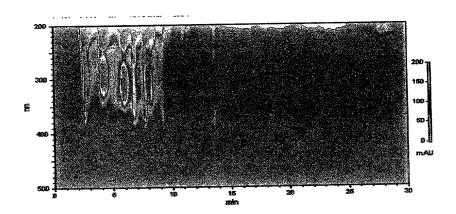
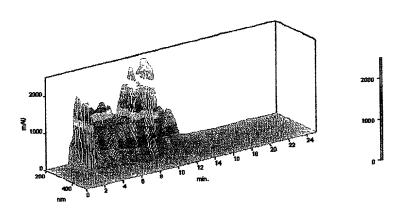


Figure 71



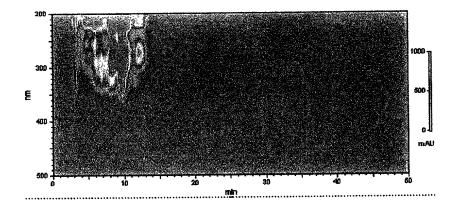
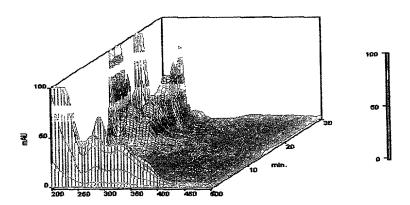


Figure 72



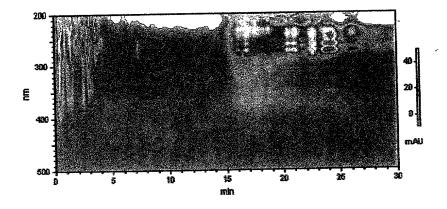
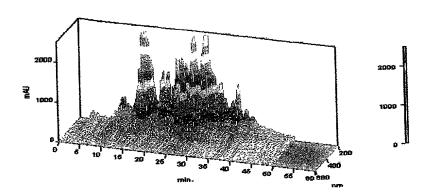


Figure 73



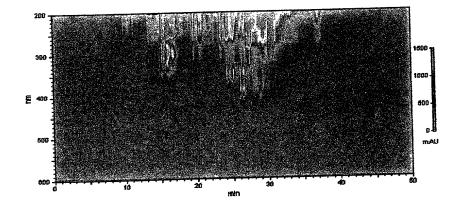
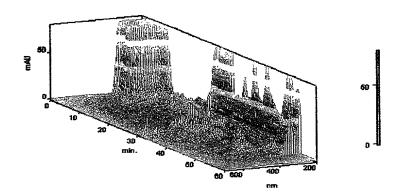


Figure 74



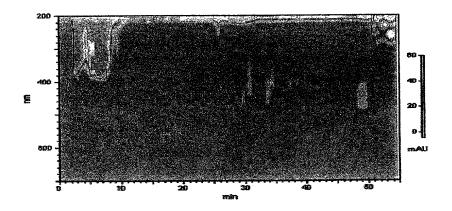
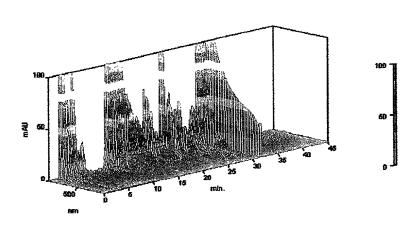


Figure 75



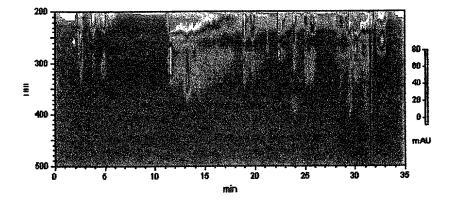
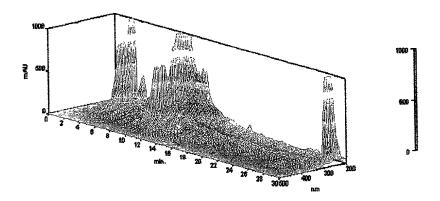


Figure 76



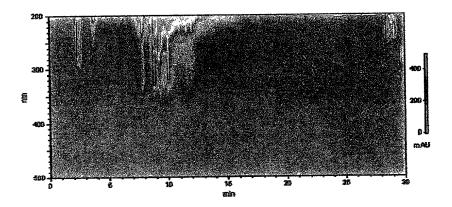
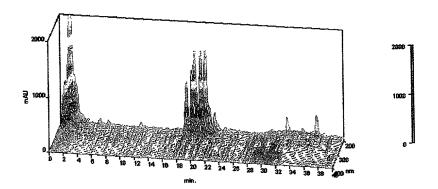


Figure 77



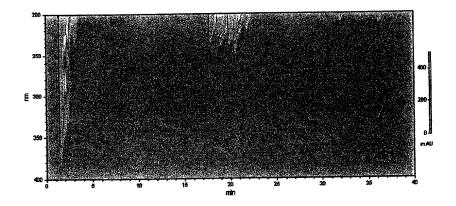
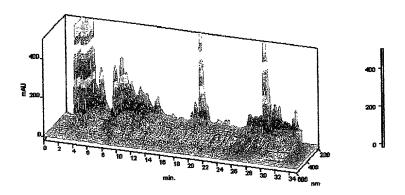


Figure 78



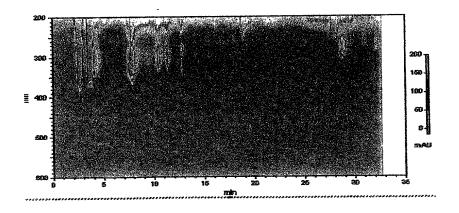
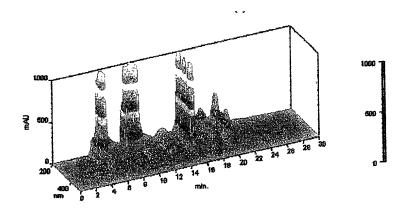


Figure 79



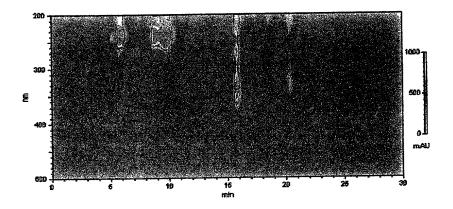
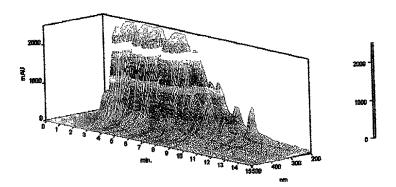


Figure 80



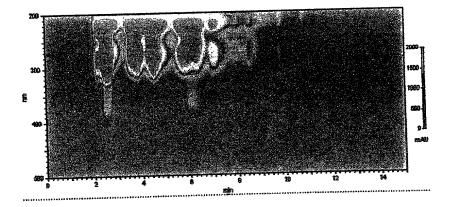
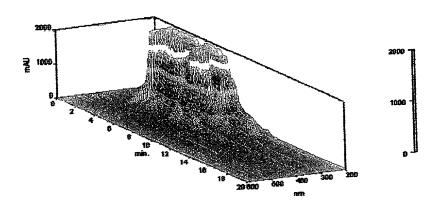


Figure 81



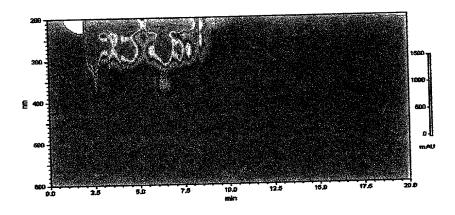
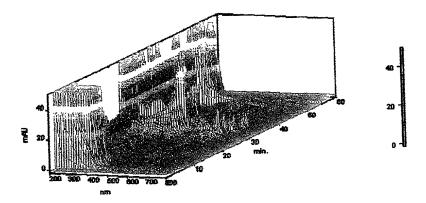


Figure 82



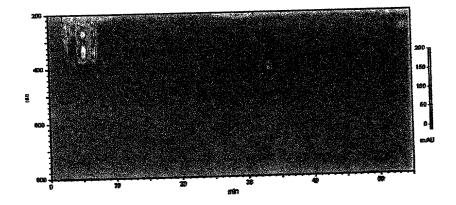
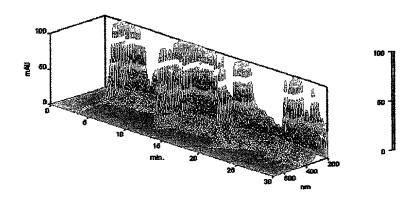


Figure 83



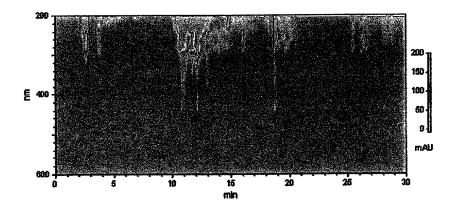
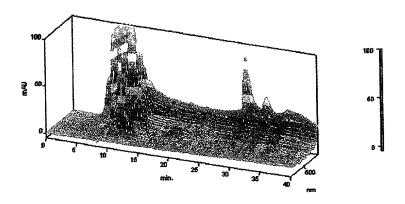


Figure 84



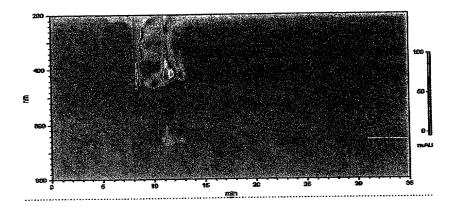
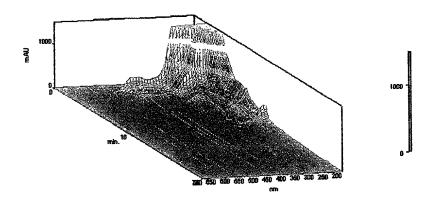


Figure 85



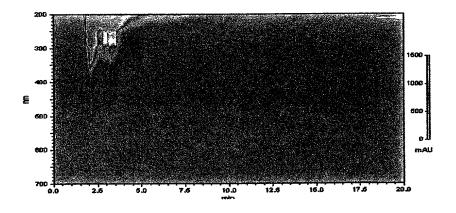
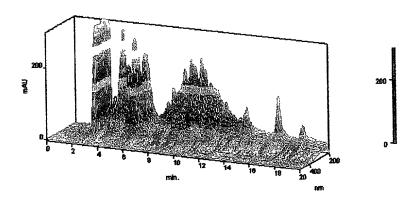
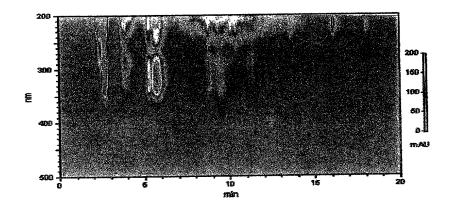
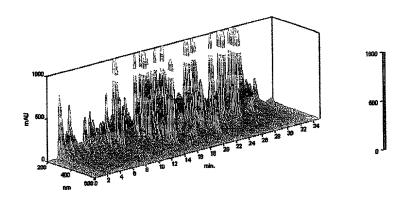


Figure 86







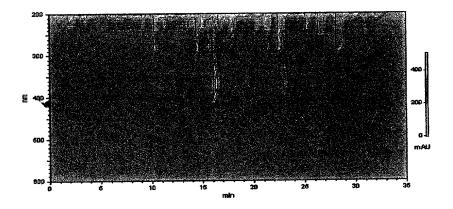
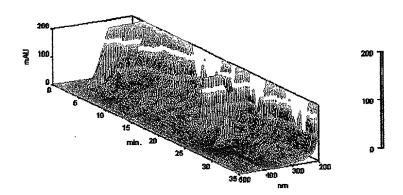


Figure 88



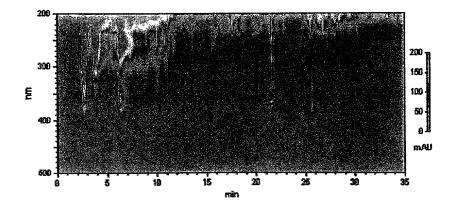
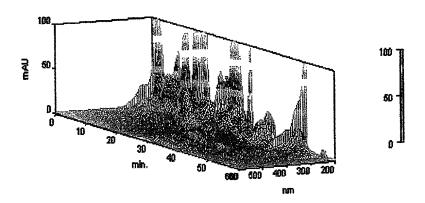


Figure 89



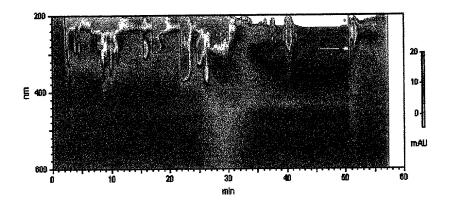
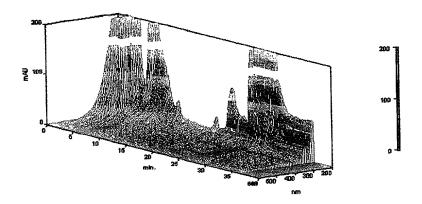


Figure 90



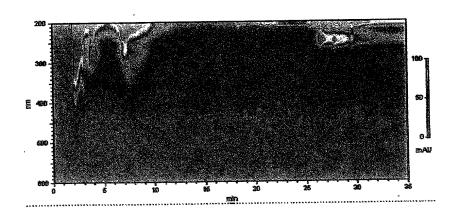
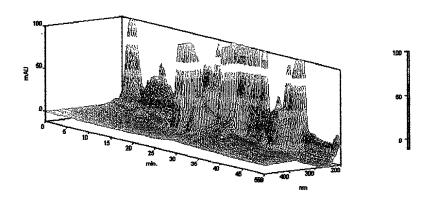


Figure 91



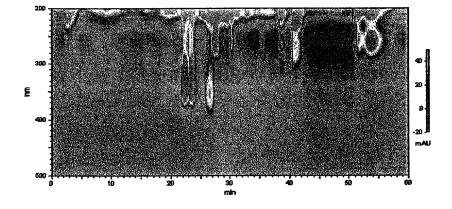
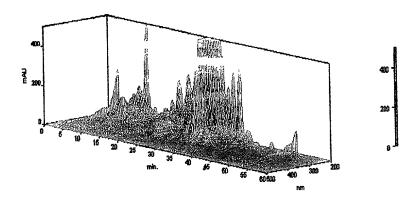
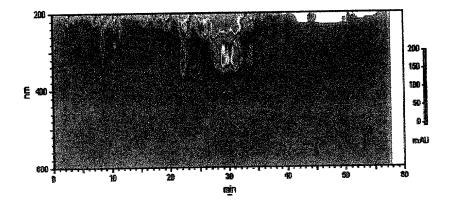
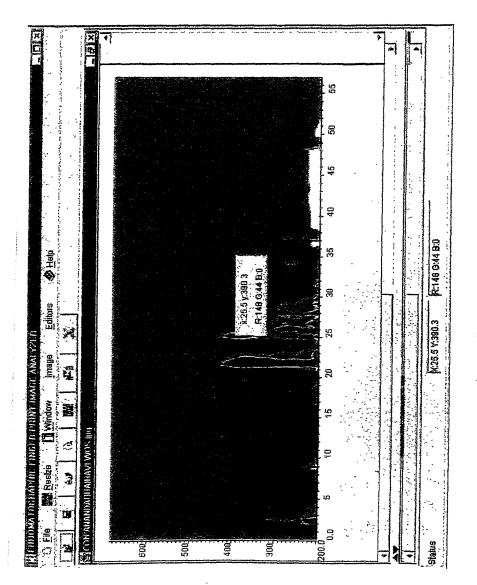


Figure 92





IMAGES WITH BAR CODE VALUES GIVEN BY THE SOFTWARE TO FEED FOR A BAR CODING SOFTWARE



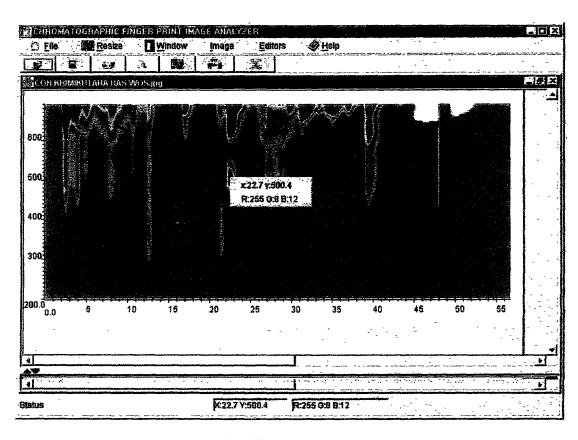
Anandabhairavi Ras

Y right clicking the image software is able to show the coordinates on the box near the peak. The same is shown in down tool bar. These will be exported to barcoding software which generates a barcode for the said values.

Figure 93

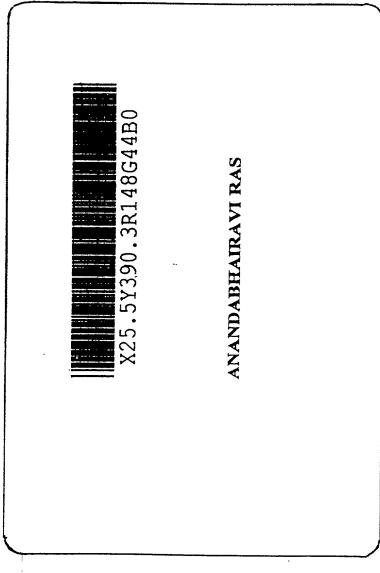
IMAGES WITH BAR CODE VALUES GIVEN BY THE SOFTWARE TO FEED FOR A BAR CODING SOFTWARE

Figure 94



Krimikutara Ras

Same mechanism as explained in Figure 93



Barcode generated for specified coordinates

Figure 95

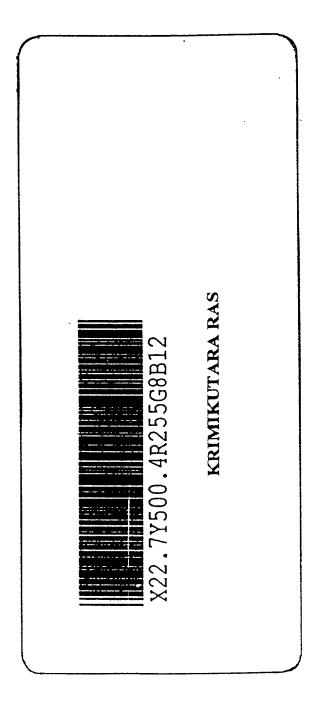
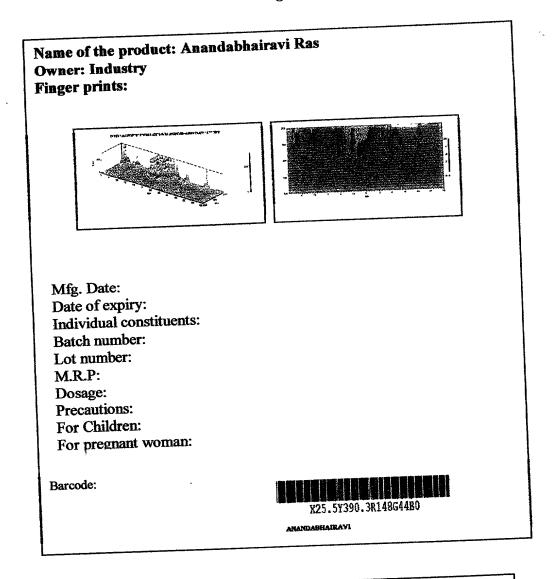


Figure 96



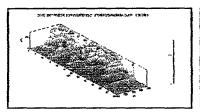
Display Window For Anandabhairavi Ras

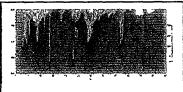
Display windows for all the medicines will be done. This becomes a database for ERP CRM application.

Figure 98

Name of the product: Krimikutara Ras

Owner: Industry Finger prints:





Mfg. Date: Date of expiry: Individual constituents:

Batch number:

Lot number:

M.R.P:

Dosage:

Precautions:

For Children:

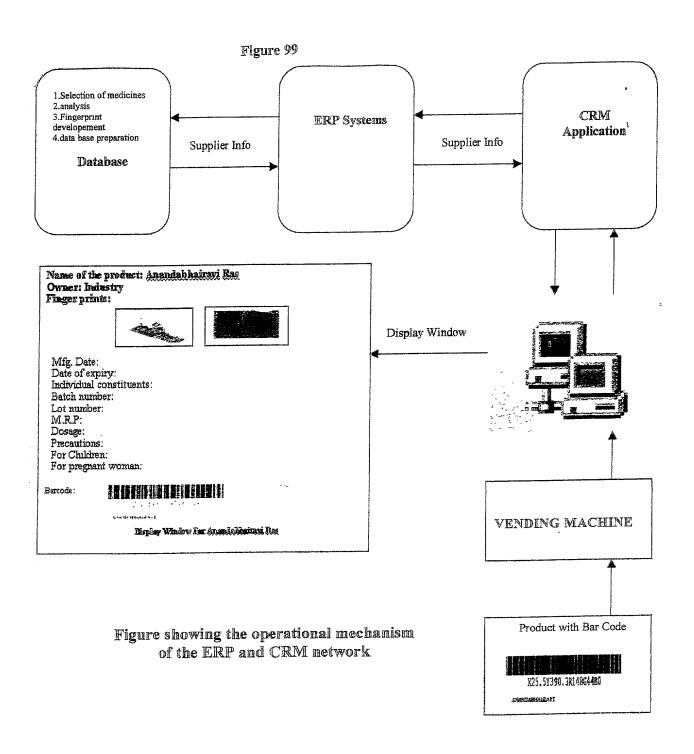
For pregnant woman:

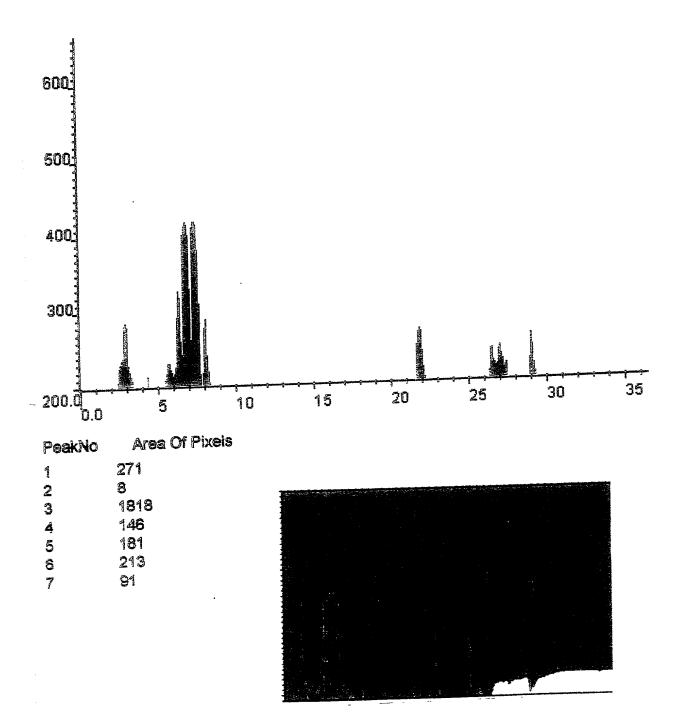
Barcode:

X22.7Y500.4R255G8B12

Krimingutara Ras

Display Window For Krimikutara Ras





CHROMATOGRAM OF AZARDIRACTA INDICA (Tender leaves in February)

Figure 100

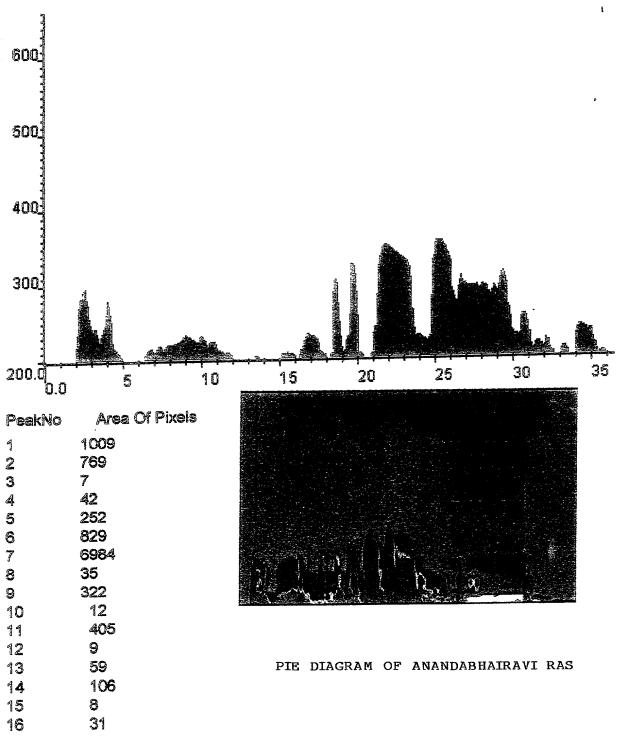
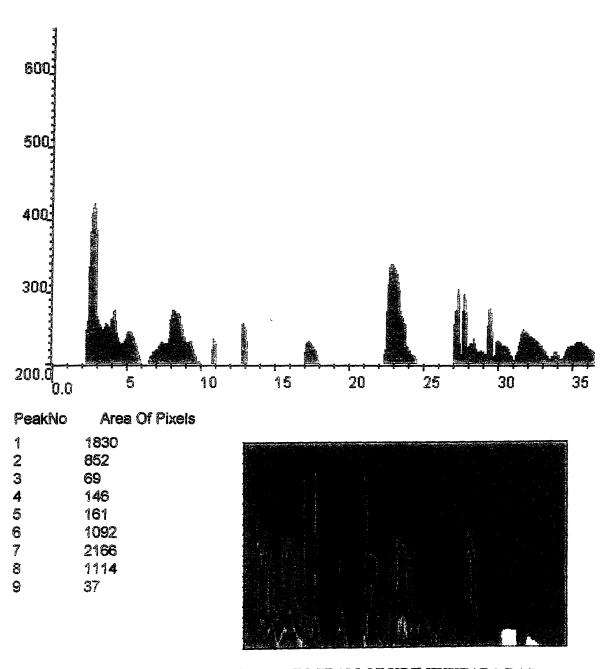
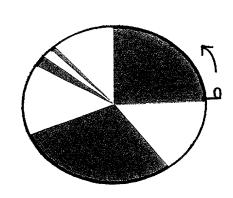


Figure 101



CHROMATOGRAM OF KRIMIKUTARA RAS

Figure 102



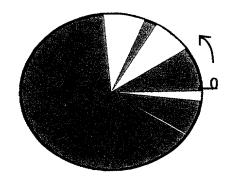
Peak 1 Peak 2 Peak 3 Peak 4 Peak 5 Peak 6	24.507833 11.410205 0.9240659 1.9552698 2.1561537 14.624347	% % % % % % % % % % % % % % % % % % %
		% % %

Percentage of pixels represents the constituents.

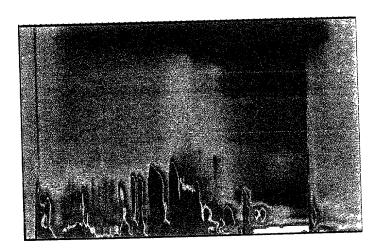


PIE DIAGRAM OF AZARDIRACTA INDICA (Tender leaves in February)

Figure 104



Peak 1	9.27475 %
Peak 2	7.0686646 %
Peak 3	0.06434415 %
Peak 4	0.3860649 %
Peak 5	2.3163893 %
Peak 6	7.620186 %
Peak 7	64.197075 %
Peak 8	0.32172075 %
Peak 9	2.9598308 %
Peak 10	0.11030425 %
Peak 11	3.7227685 %
Peak 12	0.08272819 %
Peak 13	0.54232925 %
Peak 14	0.97435427 %
Peak 15	0.07353617 %
Peak 16	0.28495267 %

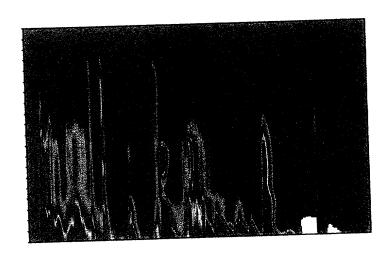


PIE DIAGRAM OF ANANDABHAIRAVI RAS

Figure 105

7

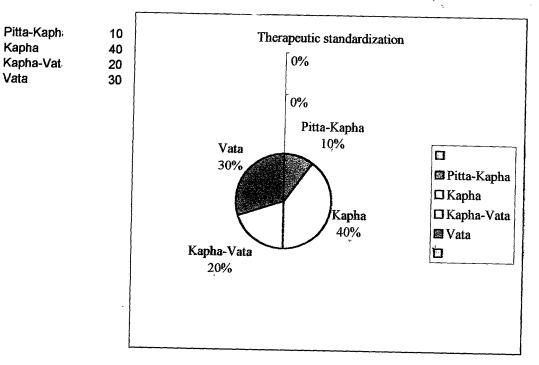
Peak 1	24.507833	%
Peak 2	11.410205	%
Peak 3	0.9240659	%
Peak 4	1.9552698	%
Peak 5	2.1561537	%
Peak 6	14.624347	%
Peak 7	29.007635	%
Peak 8	14.918977	%
Peak 9	0.4955136	%



PIE DIAGRAM OF KRIMIKUTARA RAS

Figure 106

Pixel values or percentage values from graphs.

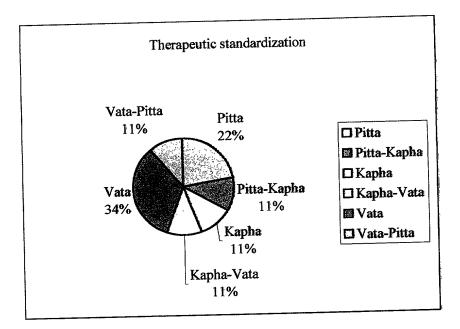


This gives the efficacy of the medicine due to the constituents present in various zones of the fingerprint.

The values of pixels were taken generally and are not for a chromatogram. This figure only shows only how it appears.

Pitta 23
Pitta-Kaphi 11
Kapha 11
Kapha-Vat 11
Vata 34
Vata-Pitta 11

Figure 107

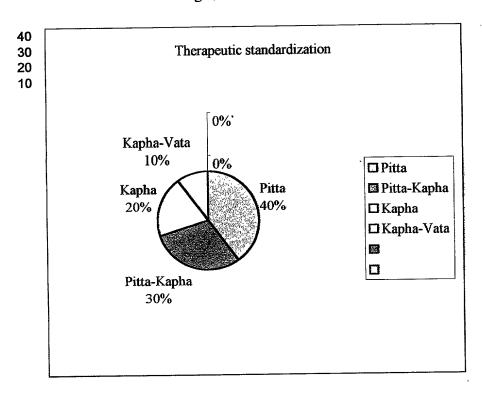


Pitta

Pitta-Kaph Kapha

Kapha-Vat

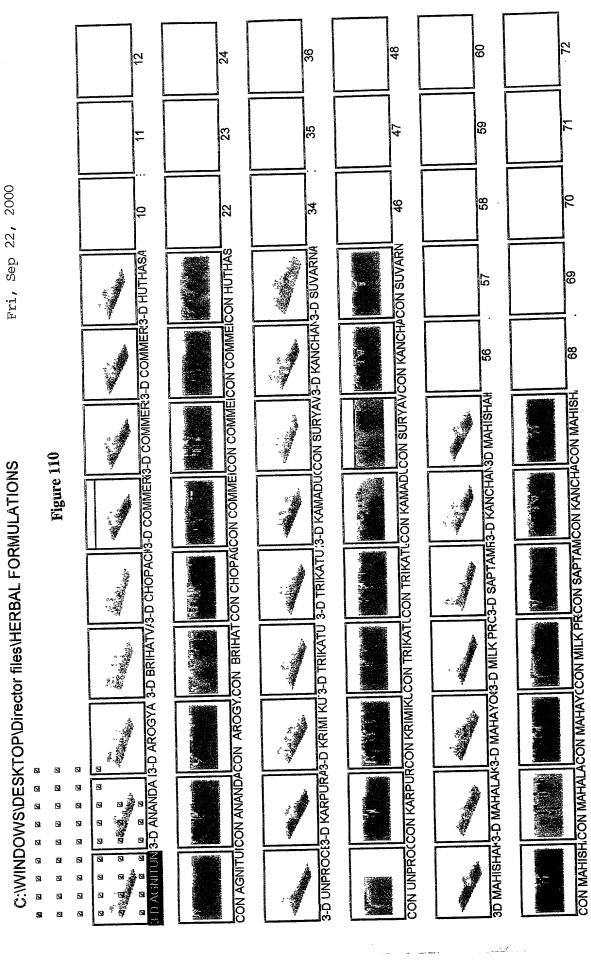
Figure 108



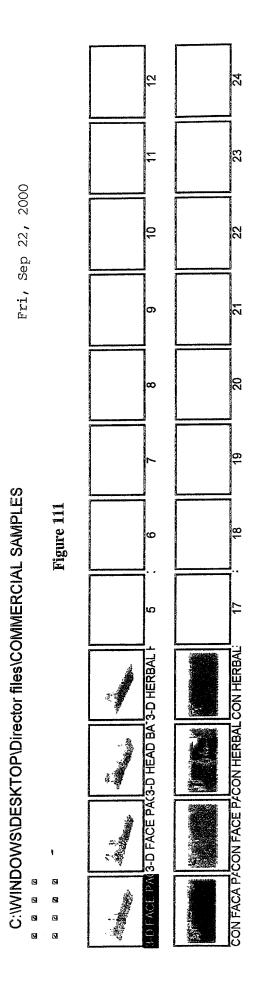
Thu, Sep 21, 2000

C:\WINDOWS\DESKTOP\Director files\SINGLE PLANTS

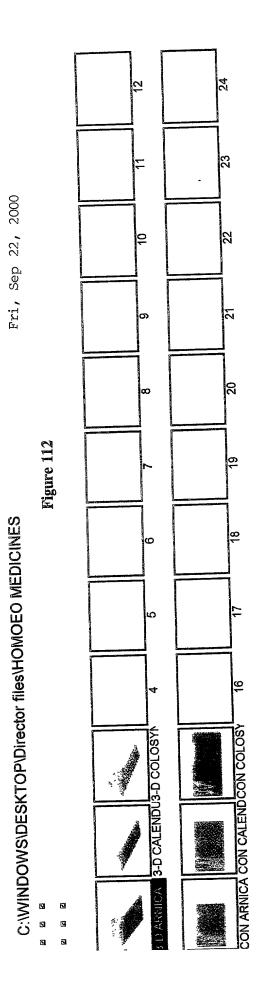
72 24 99 48 8 R 20 35 47 CON ARECA (CON ARECA (CON ASWAG, CON ASWAG; CON BEETLE CON BEETLE! 3-D COSCINIL 3-D DACTYLA 3-D DACTYLA 3-D DARU HAI3-D HARIDRA 3-D KALA JAN3-D ONION BE3-D KUTAJA (13-D KUTAJA E3-D RAKTA CF 3-D ACALIPH.3-D AMALAKI:3-D ARALU 1 13-D ARECA C/3-D ARECA C/3-D ASWAGAI3-D ASWGAN3-D BEETLE 13-D BEETLE CON COSCIN CON DACTYL CON DATYLAICONJ DARUHCON HARIDRICON KALA JACON ONION II CON KUTAJA CON KUTAJA CON RAKTA 오, 28 57 66 88 56 55 67 Figure 109 2 8 23 65 ALOE VERA 8 CON ACALIPICON AMALIKACON ARALU 22 2 CON SHILAJITCON SHILAJITCON BRAHM 3-D BRAHMI Ø S Ñ Ŋ Ŋ 2 S 3-D SHILAJIT 3-D SHILAJIT S Ø Ø S. (3) B Ø 51 S SI. Ø DALOEVE 3 Ø S Ø 2 3 a 3 51



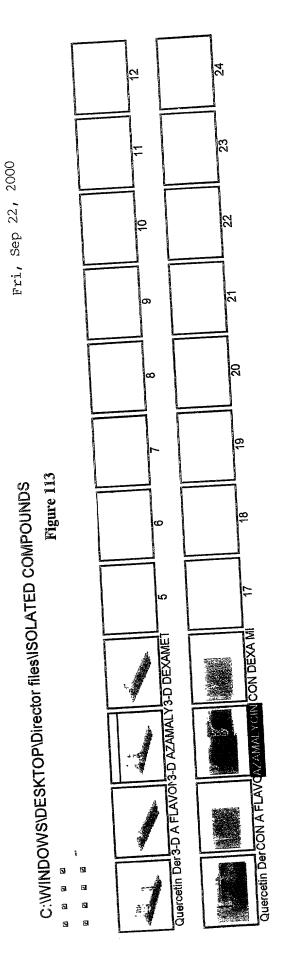
proper foralso and market for the profile product the industry to monitor their prepare a formulation. These will help standardization to p



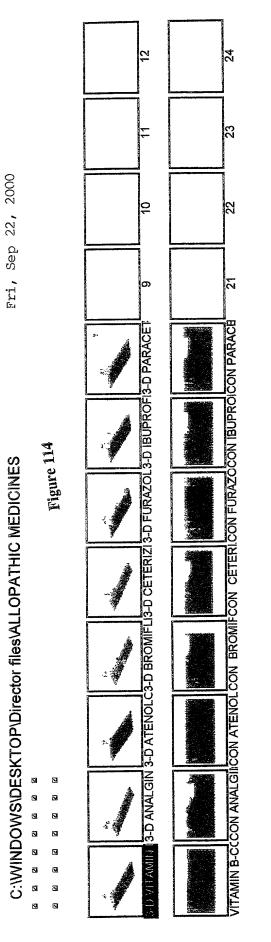
Example for adulterated cosmetic samples.



The fingerprint of Mother tincture only were done. They can be done to the level of femto gram level as the PDA detectives are very sensitive. Hence dilution can also be fingerprinted.



This helps to know the purity after isolation and to know the UV spectra of an unknown molecule.



This method can be used for all allopathic medicinesfor chemical and therapeutic standardization.

Figure 115 **Show Images** List of Images Start Analyse Display images (Colour Extraction) Analysis Chromatograms of each color No No Resize Save Zone **Print** Yes Yes Yes Yes Clip Image File System Printer

OPERATIONAL SEQUENCE OF SOFTWARE